

Screwworms, Chad
NOV 17 1958
Dr. D. L. Williams and Dr. M. E. Meadows, Jr.

November 12, 1958

William H. Cross

Justification for a Rolling Field Laboratory

Due to the stubborn persistence of isolated populations of screwworms in several areas of southern Florida, an intensive field survey in these areas is necessary. Also, there are wide areas of this part of the State which have considerable live-stock and wildlife of which inspection for screwworm infestation is very meager. Survey of these critical areas would be most effectively carried out by two approaches.

First, all available animal wounds should be checked daily for the presence of egg masses and for the activity of adult screwworms. Where possible, castrated pigs and other animals wounded in normal ranching activities, will be confined for these daily checks. Analysis of egg masses for hatching and culture of any larvae, thus procured, for later study of native strain mating characteristics, offer an opportunity for detecting reasons for the persistence of these isolated screwworm populations.

Second, (by collecting over attractive baits or with status traps), adult screwworms could be taken alive or freshly killed for analysis of egg development (a method for recognizing native flies). This is an effective means for locating native flies where wounds are unavailable.

A practical way to accomplish such a field survey involves the use of two experienced field men in the area to be checked equipped with a small rolling laboratory, including facilities for studying specimens (dissecting adults, examining egg masses, etc.), hatching eggs, rearing larvae (in small numbers), and holding pupae for removal to the screwworm rearing plant. They would also be equipped with a number of status traps, bait, and the materials required for examining wounded animals. Accomplishment of most of these activities would be impossible without the availability of certain laboratory equipment in the area being checked.

It is recommended that the house trailer now in use by the Methods Development Unit for Quality Control activities be utilized for such a laboratory since with almost no modification this unit could be made suitable for field use. (A large reefer is available and would actually be a more adequate laboratory for Quality Control if furnished with two work tables, a sink, and a small refrigerator.) The house trailer would be pulled to location with a power wagon. The power wagon would then be used to distribute status traps and to survey the traps and animal hosts.

About three members of the Methods Development Unit and two or more members of the Field Operations Unit are available for part time field survey work.

2 - Dr. D. L. Williams and Dr. H. E. Meadows, Jr. - November 12, 1958

In a telephonic conversation with Dr. E. C. Bushland today, he indicated full agreement for the necessity of such a field operation. His only concern was that the time needed to accomplish the modifications required on the house trailer and on the substitute laboratory for Quality Control would not detract from repair and construction needed in the Screwworm Rearing Plant.

Mr. Rusman estimates that with very little expenditure of time and at a cost of less than \$500.00 necessary modifications can be made on the house trailer (see attached drawing) and the Quality Control laboratory set up.

cc: T. W. Cole
C. L. Campbell
E. S. Sharman
E. W. Morgan
✓ E. C. Bushland

